

AMENDMENTS TO THE CLAIMS:

Claims 17, 18, 19, 20, 22, 23 are canceled without prejudice or disclaimer. Claims 8, 12, 13, 15, 16, 21, 22, 23, 24, 26 are amended. The following is the status of the claims of the above-captioned application, as amended.

Claim 1. (Original.) A polypeptide having antimicrobial activity, comprising the amino acid sequence as set forth in SEQ ID NO:1, or a fragment thereof of at least 19 amino acids having antimicrobial activity:

G-X1-X2-X3-R-X4-X5-X6-K-I-X7-X8-K-X9-X10-K-X11-X12-X13-X14-I-K-X15-X16-X17-X18-L-V-P;

wherein

X1 = L or R; X2 = L, V, I or F; X3 = R or K;

X4 = L, V, I or F; X5 = R, K, W or G; X6 = K, R, G, M, N or E;

X7 = G, R, K or E; X8 = G, R, K or E; X9 = L or F;

X10 = K or R; X11 = I, L, F, C or Y; X12 = G, A or T;

X13 = Q, R, L or P; X14 = K, I, M, L or V; X15 = P, A, H, N or D;

X16 = I or L; X17 = R, H, Q or P; X18 = I or K;

and wherein the amino acids making up the polypeptides are independently selected from D or L forms.

Claim 2. (Original.) A polypeptide having antimicrobial activity, comprising an amino acid sequence, which differs by at the most two amino acids from the amino acid sequence:

G-X1-X2-X3-R-X4-X5-X6-K-I-X7-X8-K-X9-X10-K-X11-X12-Z;

wherein

X1 = L or R; X2 = L, V, I or F; X3 = R or K;

X4 = L, V, I or F; X5 = R, K, W or G; X6 = K, R, G, M, N or E;

X7 = G, R, K or E; X8 = G, R, K or E; X9 = L or F;

X10 = K or R; X11 = I, L, F, C or Y; X12 = G, A or T;

Z = R or X13-X14-I-K-X15-X16-X17-X18-L-V-P;

wherein

X13 = Q, L or P; X14 = K, I, M, L or V; X15 = P, A, H, N or D;

X16 = I or L; X17 = R, H, Q or P; X18 = I or K;

and wherein the amino acids making up the polypeptides are independently selected from D or L forms.

Claim 3. (Original.) The polypeptide of claim 2, comprising an amino acid sequence, which differs by at the most two amino acids from the amino acid sequence, as set forth in SEQ ID NO:58,

G-X1-X2-X3-R-X4-X5-X6-K-I-X7-X8-K-X9-X10-K-X11-X12-R;

wherein

X1 is L or R; X2 is L or F; X3 is R or K;

X4 is L or F; X5 is R, K or G; X6 is K, R or E;

X7 is G or K; X8 is K, R or E; X9 is L or F;

X10 is K or R; X11 is I or L; X12 is A or T.

Claim 4. (Original.) The polypeptide of claim 2, comprising an amino acid sequence, which differs by at the most two amino acids from the amino acid sequence, as set forth in SEQ ID NO:2,

G-X1-X2-X3-R-X4-X5-X6-K-I-X7-X8-K-X9-K-K-X10-G-X11-X12-I-K-X13-X14-X15-X16-L-V-P;

wherein

X1 = L or R; X2 = L, V, I or F; X3 = R or K;

X4 = L, V, I or F; X5 = R, W or G; X6 = K, R, G, M, N or E;

X7 = G, R, K or E; X8 = G, R, K or E; X9 = L or F;

X10 = I, F, C or Y; X11 = Q, L or P; X12 = K, I, M, L or V;

X13 = P, A, H, N or D; X14 = I or L; X15 = R, H, Q or P;

X16 = I or K.

Claim 5. (Original.) The polypeptide of claim 2, which comprises an amino acid sequence that has at the most two substitutions, deletions and/or insertions of an amino acid as compared to amino acids 1 to 29 of SEQ ID NO:1, amino acids 1 to 29 of SEQ ID NO:2 or amino acids 1 to 19 of SEQ ID NO:58.

Claim 6. (Original.) The polypeptide of claim 2, which comprises amino acids 1 to 29 of SEQ ID NO:1, amino acids 1 to 29 of SEQ ID NO:2 or amino acids 1 to 19 of SEQ ID NO:58.

Claim 7. (Original.) The polypeptide of claim 2, which consists of amino acids 1 to 29 of SEQ ID NO:1, amino acids 1 to 29 of SEQ ID NO:2 or amino acids 1 to 19 of SEQ ID NO:58.

Claim 8. (Currently amended.) A polynucleotide having a nucleotide sequence which encodes for the polypeptide defined in claim 1~~any of claims 1-7~~.

Claim 9. (Original.) A nucleic acid construct comprising the nucleotide sequence defined in claim 8 operably linked to one or more control sequences that direct the production of the polypeptide in a suitable host.

Claim 10. (Original.) A recombinant expression vector comprising the nucleic acid construct defined in claim 9.

Claim 11. (Original.) A recombinant host cell comprising the nucleic acid construct defined in claim 9.

Claim 12. (Currently amended.) A method for producing a polypeptide as defined in claim 1~~any of claims 1-7~~, the method comprising:

- (a) cultivating a recombinant host cell as defined in claim 10 under conditions conducive for production of the polypeptide; and
- (b) recovering the polypeptide.

Claim 13. (Currently amended.) A composition comprising an antimicrobial polypeptide as defined in claim 1~~any of claims 1-7~~.

Claim 14. (Original.) The composition of claim 13, which further comprises an additional biocidal agent.

Claim 15. (Currently amended.) A method for killing or inhibiting growth of microbial cells comprising contacting the microbial cells with an antimicrobial polypeptide as defined in claim 1~~any of claims 1-7~~.

Claim 16. (Currently amended.) A detergent composition comprising a surfactant and an antimicrobial polypeptide as defined in claim 1~~any of claims 1-7~~.

Claim 17. (Canceled.)

Claim 18. (Canceled.)

Claim 19. (Canceled.)

Claim 20. (Canceled.)

Claim 21. (Currently amended.) A transgenic plant, plant part or plant cell, which has been transformed with a nucleotide sequence encoding a polypeptide having antimicrobial activity as defined in any of claim 1~~claims 1-7~~.

Claim 22. (Canceled.)

Claim 23. (Canceled.)

Claim 24. (Currently amended.) An animal feed additive comprising
(a) at least one antimicrobial polypeptide as defined in claim 1~~any of claims 1-7~~; and
(b) at least one fat soluble vitamin, and/or
(c) at least one water soluble vitamin, and/or
(d) at least one trace mineral, and/or
(e) at least one macro mineral.

Claim 25. (Original.) The animal feed of claim 24, which further comprises phytase, xylanase, galctanase, and/or beta-glucanase.

Claim 26. (Currently amended.) An animal feed composition having a crude protein content of 50 to 800 g/kg and comprising at least one antimicrobial polypeptide as defined in claim 1~~any of claims 1-7~~.